

67. A filtering face mask that comprises:

(a) a mask body that is adapted to fit over the nose and mouth of a wearer; and

(b) an exhalation valve that is attached to the mask body, the exhalation valve comprising:

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(1) a valve seat that comprises:

(i) an orifice; and

(ii) a seal surface that surrounds the orifice when the valve seat is viewed from the front;

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(2) a single flexible flap that is supported by the valve seat and that has a stationary portion and a free portion and a peripheral edge that includes stationary and free segments, the stationary segment of the single flexible flap's peripheral edge being associated with the stationary portion of the flap so as to remain at rest during an exhalation, and the free segment of the flap's peripheral edge being associated with the free portion of the flexible flap so as to be lifted away from the seal surface during an exhalation, the free segment also being located below the stationary segment when the filtering face mask is worn on a person, the flexible flap being positioned on the valve seat such that the flap is pressed towards the seal surface in an abutting relationship therewith when a fluid is not passing through the orifice; and

(3) a valve cover that is disposed over the valve seat and that comprises:

(i) an opening that is disposed in the path of fluid flow when the free portion of the flexible flap is lifted from the seal surface during an exhalation; and

(ii) a fluid impermeable ceiling that is higher above the free segment of the flap's peripheral edge than above the stationary segment of the flap's peripheral edge;

wherein during an exhalation, the free portion of the flexible flap lifts from the seal surface and moves toward the fluid impermeable ceiling so that exhaled air can exit through the opening in the valve cover.

68. The filtering face mask of claim 67, wherein the single flexible flap has only one free portion.

free portion of the flexible flap so as to be lifted away from the seal surface during an exhalation, the free segment also being located below the stationary segment when the filtering face mask is worn on a person, the flexible flap being positioned on the valve seat such that the flap is pressed towards the seal surface in an abutting relationship therewith when a fluid is not passing through the orifice; and

(3) a valve cover that is disposed over the valve seat and that comprises:

(i) an opening that is disposed directly in the path of fluid flow when the free portion of the flexible flap is lifted from the seal surface during an exhalation;

(ii) a fluid impermeable ceiling that is spaced further from the valve seat above the free segment of the flap's peripheral edge than above the stationary segment of the flap's peripheral edge; and

(iii) cross members that are disposed within the opening of the valve cover.

66. A filtering face mask that comprises:

(a) a mask body that is adapted to fit over the nose and mouth of a wearer; and

(b) an exhalation valve that is attached to the mask body, the exhalation valve comprising:

(1) a valve seat that comprises:

(i) a seal surface; and

(ii) an orifice that is circumscribed by the seal surface.

(2) a single flexible flap that is supported by the valve seat and that has a stationary portion and a free portion and a peripheral edge that includes stationary and free segments, the stationary segment of the single flexible flap's peripheral edge being associated with the stationary portion of the flap so as to remain at rest during an exhalation, and the free segment of the flap's peripheral edge being associated with the free portion of the flexible flap so as to be lifted away from the seal surface during an exhalation, the free segment also being located below the stationary segment when the filtering face mask is worn on a person, the flexible flap being positioned on the valve

seat such that the flap is pressed towards the seal surface in an abutting relationship therewith when a fluid is not passing through the orifice; and

(3) a valve cover that is disposed over the valve seat and that comprises:

(i) an opening that is disposed directly in the path of fluid flow when the free portion of the flexible flap is lifted from the seal surface during an exhalation;

(ii) a fluid impermeable ceiling that is higher above the free segment of the flap's peripheral edge than above the stationary segment of the flap's peripheral edge; and

(iii) cross members that are disposed within the opening of the valve cover;

wherein during an exhalation, the free portion of the flexible flap lifts from the seal surface and moves towards the fluid impermeable ceiling so that exhaled air can exit through the opening in the valve cover.

Please amend claims 33 and 55 as set forth below:

33. A filtering face mask that comprises:

(a) a mask body that is adapted to fit over the nose and mouth of a wearer; and

(b) an exhalation valve that is attached to the mask body, the exhalation valve comprising:

(1) a valve seat that comprises:

(i) a seal surface; and

(ii) an orifice that is circumscribed by the seal surface.

(2) a single flexible flap that has a stationary portion and a free portion and first and second opposing ends, the first end of the single flexible flap being associated with the stationary portion of the flap so as to remain at rest during an exhalation, and the second end being associated with the free portion of the flexible flap so as to be lifted away from the seal surface during an exhalation, the second end also being located below the first end when the filtering face mask is worn on a person, the flexible flap being

positioned on the valve seat such that the flap is pressed towards the seal surface in an abutting relationship therewith when a fluid is not passing through the orifice; and

(3) a valve cover that is disposed over the valve seat and that comprises:

(i) an opening that is disposed directly in the path of fluid flow when the free portion of the flexible flap is lifted from the seal surface during an exhalation;

(ii) a fluid impermeable ceiling that increases in height in the direction of the flexible flap from the first end to the second end; and

(iii) cross members that are disposed within the opening of the valve cover.

55. The filtering face mask of claim 33, wherein the stationary portion of the flexible flap includes about 10 to 25 percent of the total circumferential edge of the flexible flap, with the remaining 75 to 90 percent being free to be lifted from the seal surface.